Briefing paper 6

# Learning Technology: Key Implications for Academic Staff

## Report of a career development study of learning technology staff in UK higher education (HE)

A national study was commissioned by the JISC[1] to provide an in-depth audit and review of staff roles and activities associated with the embedding, development and support of learning technology in HE. The study team also investigated patterns of staff recruitment and deployment across the audited institutions, relating these to critical institutional factors. Recommendations for further study and strategic focus by the JISC and guidelines for institutions on staff recruitment, deployment and development for effective support of Information and Communications Technology (ICT) for learning and teaching were also included. Whilst there are constant changes in emphasis within this fast-moving area and many institutions are now focusing on e-Learning, or managed learning strategies, the findings and guidance resulting from this study are still very topical and will be relevant to all those who work with learning technology within HE.

This paper describes:

- Why this study is important to you and how you can make use of it
- The role of learning technology in transforming the learning and teaching agenda in HE
- Key implications for academic staff
- The emergence of new roles and cross-boundary working
- Further information and support

### The study

The use of learning technology is an increasingly central aspect of the student learning environment and experience. Until now, staff working with learning technology have often lacked visibility and recognition. As technology becomes pivotal in the pedagogical and strategic changes facing HE, it is increasingly important that these staff are properly understood and supported. At the same time, the boundaries between academic and other roles are blurring. Academic staff are working with a wider range of other professionals, and being driven by a changing learning and teaching agenda. While academic staff are often seen as a client group for leaning technology support, they in fact play a crucial role in learning technology development and have a wide range of essential skills to offer.

The study set out to investigate the people involved with learning technology at all levels. It identified common patterns of skills, distinct and emerging roles, and the practices, values and needs of this growing community. It also looked into the institutional factors affecting the working context of learning technology staff, and related professional issues.

### Why this study is important to you

This briefing paper aims to highlight the areas of the study which are most relevant to academics, whose active engagement and pedagogical skills are crucial if the new technological opportunities are to be harnessed to improve student learning. Throughout the paper there are questions and issues for you to reflect on. These are designed to help you in turn to ask the right questions and identify who and what can help to move things forward for you and your institution.

### Five studies in one

The original project involved a number of distinct but overlapping studies. Some of these focused on individuals, in order to provide a picture of the diverse, multiple and emerging

[1] The Career Development of Learning Technology Staff Scoping Study was carried out between June 2000 and January 2001. It was led by Helen Beetham and a team from the Universities of Plymouth, Bristol and Glamorgan. Since then, follow-up work has been undertaken to make both the findings and methodology more widely available to the HE community.

roles within this increasingly active area of learning and teaching. Others set out to investigate the institutional context of learning technology work. The five studies comprised:

- A role analysis of 35 diverse individuals
- A series of in-depth case studies with 17 individuals, chosen from four representative HE institutions (HEIs)
- An audit of 23 institutions
- An analysis of patterns of staff recruitment and deployment across the audited institutions, relating these to critical institutional factors
- Senior manager and stakeholder interviews at four representative institutions

## New roles

The role analysis identified 11 distinct roles, although these did not correspond with actual divisions of labour among individuals, many of whom were carrying out multiple roles. The case studies identified three categories of individuals with a distinctive range of roles for each type: 1, *new specialists*; 2. *academics and established professionals*; and 3. *learning support professionals*.

The *new specialists* included the roles of educational developer, educational researcher, technical researcher/developer, materials developer, project manager and general learning technologist. In practice, these roles were rarely carried out in isolation, with most individuals having responsibilities across at least two different areas.

The *academics and established professionals* were academic staff working with new technology (academic innovators), and academic managers with secure positions in the institutional infrastructure. We found that about 10% (8,000 UK-wide) of all academic staff in departments could be classed as innovators, and this percentage was remarkably consistent across institutions. Established professionals are a much smaller group, around 1,000 UK-wide. In a minority of cases the established profession was academic librarian or educational developer.

These individuals – academics and academic managers who are working to embed learning technology into their professional activities – are an essential resource for their institutions. They also form a key client group for the services of staff in the other two categories.

The *learning support professionals* were staff in non-academic roles, specifically technical support professionals, library/resource professionals and ICT skills professionals, who were taking on more responsibility for supporting access to learning technology.

## New skills for new roles

The role analysis was based on 58 different activities or roles that were involved in the coordination, development, use and support of learning technology. On average, participants carried out at least 20 activities as ‘core’ or ‘central’ to their role, and a further 20 ‘regularly’ or ‘occasionally’, indicating competence in an extraordinarily wide range of areas. The skills needed by staff who were active in learning technology work can be grouped into three broad categories, as outlined in Table 1 below.

| Table 1: Learning-technology related skills | |
|---|---|
| **Generic technical competence** | • Practical application of skills<br>• Reflection, critical evaluation and updating of skills<br>• 'Peer supported experimentation' – continually practising and developing technical skills in new contexts |
| **Interpersonal, communication and strategic skills** | • Mentoring, team working, strategic participation<br>• Belonging to and fostering communities and networks of practice<br>• Knowledge management, including use of online and electronic knowledge media<br>• Acting as change agents, champions and staff developers |
| **Academic and pedagogic skills** | • Analysing, embedding, adapting, repurposing and reviewing new tools and materials<br>• Curriculum planning and development, including in multi-role development teams<br>• Evaluating student learning outcomes<br>• Developing and promoting scholarship of teaching<br>• Critiquing and transforming institutional practice |

*Are you finding that you need new skills to carry out your role(s) effectively? Do you have the support you need to develop them?*

## Professional development needs

Staff in the study who were already making use of learning technology were identified as classic 'lifelong learners'. They recognised the need to undertake continuous professional development to remain competent in a rapidly changing area of expertise, and they often used a variety of strategies – including peer-supported and self-directed learning – to acquire new skills. In addition, it was found that:

- Academic staff need to acquire technical and pedagogical skills in an integrated way if they are to make effective use of learning technology in their professional work
- The institutional audit confirmed that staff development events which integrated pedagogical with technical skills were available at just under 60% of institutions and that a similar percentage incorporated learning technology into their new lecturers' programme
- Academics were found to have more development opportunities than the other categories of staff, typically in-house workshops on learning technology use and external conferences or briefings related to their 'established' profession, but these were often attended only by a handful of enthusiasts
- With so many other pressures on academic time, specific time to devote to learning new technical and pedagogical approaches was rarely available, even when it was recognised that these might be time-saving in the long run
- Academic staff were most likely to turn to close colleagues for help and advice, suggesting that learning technology support needs to be provided in departments and faculties as well as centrally

*Which of these are available to you –*
*Formal workshops? Mentoring? Professional development time? External opportunities?*

## Institutional practice

**Possible indicators of good practice**
In the audit study, institutions with nationally recognised expertise in learning technology were all found to have the following:

- Good collaborative networks, internally and with other institutions
- Targeted support for teaching staff to integrate learning technology into their courses
- Department/service teams with their own local planning to meet strategic aims
- Specialist learning technology development teams within computing services
- A requirement on programmes of study to address student ICT skills
- A requirement on departments to demonstrate pedagogical research/scholarship of teaching

**Supporting institutional development**
The shift of emphasis away from the development of stand-alone computer-assisted learning (CAL) programmes and towards the use of more generic tools within managed learning environments undoubtedly requires a shift in institutional support and investment. The focus-group discussions and audit findings identified the following areas where this support should be focused:

- Educational and curriculum development (especially in departments and programmes)
- Development of integrated systems, informed by the needs of learners and learning and teaching staff
- Staff and student access to resources, both centrally and in departments and programmes
- Integration of learning technology into the actual learning spaces of the institution (e.g. data projectors, electronic whiteboards, etc)
- Adaptation of learning spaces and maintenance of new facilities to ensure maximum access

## Key implications for academic staff

- **Shifting sands and new agendas**
  Thanks to a series of national funding initiatives, UK HE is among the world leaders in the development of the Internet and the accumulation of electronic resources (NCIHE 1997[2], JISC 1999[3]). However, the same information revolution is now challenging many of the traditional functions and structures of the sector. The agenda for using learning technology or e-Learning in HE is no longer a simple matter of disseminating new tools to teachers. Learning technology is set to change both the prevailing teaching paradigm and the academic role as well as helping to address other national drivers such as widening participation, increased student numbers and accessibility.

  *How can you and your academic colleagues harness this opportunity? What steps need to be taken to empower staff at your institution? How is your institution addressing these issues strategically?*

- **Opportunities to innovate and move forward institutional practice**
  With learning and teaching strategies now in place at all UK HEIs, there are real opportunities for academics with skills and experience with learning technology to influence and change existing institutional practice. Sharing experiences, publishing

[2] National Committee of Inquiry into Higher Education (1997) *Higher Education in the Learning Society* (the Dearing Report), HMSO/NCIHE.

[3] Joint Information Systems Committee (1999) *Adding Value to the UK's Learning, Teaching and Research Resources: the Distributed National Electronic Resource (DNER):* http://www.jisc.ac.uk/pub99/dner_vision.html

outcomes and re-using materials are now recognised as valuable activities, encouraged by national initiatives such as the Learning and Teaching Support Network (LTSN) and the JISC.

*Are there existing institutional fora that could facilitate this sharing? In what ways could academic staff be given more encouragement and recognition for sharing their innovations?*
*Who should you be asking?*

- **Recognise and build on differences**
  The very wide range of roles and skills identified in this study demonstrates the need for collaborative teams where multiple skills are employed to achieve results. Recognising and valuing the different contributions and roles of *new specialists*, technical, educational development and learning support staff is essential to the success of integrating learning technology within courses and curricula and developing new models of learning and teaching. Academic staff have a critical role to play in bringing together different partners within a focus on student learning. They also need to adapt to different roles themselves, either as part of a team or as the 'client' for curriculum or infrastructure development projects.

  *What will help to develop effective partnerships and collaborative teams? How can academics lead the development of a shared dialogue and pedagogy? What support do academics need to develop these multiple roles themselves? What barriers are there, if any, to effective partnerships between academic, library and technical staff and how can these be overcome?*

- **Reflective practice**
  This study has shown a distinct need to promote 'peer supported experimentation' and critical reflection. The short shelf-life of technology related skills means that there must be time allocated in busy academic schedules for continuous professional development and for sharing of new ideas, for example through lunch-time workshops, newsletters and Web pages. Institutions must also explore ways of acknowledging and accrediting these new skills and areas of expertise, for example through teaching fellowships, secondments, development funding and/or academic credit. Furthermore, academics should have opportunities to develop these skills in authentic professional contexts.

  *What opportunities for experimentation and critical reflection exist at your institution? How can you push for further opportunities of support?*

## Taking things forward

You should now have identified some of your needs for continuing professional development (CPD) in this area and some of the support that may be available. What can you do now to take things forward?

1. Talk to other departments to find out who else is interested in this developing area of academic work.
2. Identify where decisions are made – locally and institutionally – about learning technology and make your case known.
3. Record your own CPD activities and any learning and teaching innovations you try. They will be valuable to others and may help your own career progression.

## Read on…

This briefing paper can only serve as an introduction to the study, which is large and wide-ranging. A series of briefing papers has been prepared to present the most relevant findings to different audiences. It is recommended that you obtain all the briefing papers in order to obtain a comprehensive overview of the impact of the study and its findings.

## Other briefing papers available

Briefing paper 1: Learning Technology: Key Implications for Educational Developers
Briefing paper 2: Learning Technology: Key Implications for Learning Technology Staff

Briefing paper 3: Learning Technology: Key Implications for Managers of Learning Technology Specialists and Heads of Personnel
Briefing paper 4: Learning Technology: Key Implications for IT Services Staff
Briefing paper 5: Learning Technology: Key Implications for Library Staff
Briefing paper 7: Embedding Learning Technology Institutionally (ELTI): Using the ELTI Audit Tools
Senior Management Briefing Paper: Embedding Learning Technology Institutionally

## Institutional audit tools

In addition to the briefing papers, the original audit tools used in the career development study with a full training pack and comprehensive guidance notes are available.

Copies of the full report, briefing papers and audit tools are available from:

http://www.jisc.ac.uk/careers

## Further information and support

For further information and details of institutional support for undertaking an audit, please contact Sue Timmis at the Institute for Learning and Research Technology, University of Bristol, at:

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